STIC Biotechnology Systems Branch

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: $\frac{10/828,623}{1Fwo}$ Date Processed by STIC: $\frac{2/7/05}{1}$

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE <u>CHECKER VERSION 4.2.2 PROGRAM</u>, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom. Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

- 1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>, EFS Submission User Manual ePAVE)
- 2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
- 3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05): U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building. 401 Dulany Street. Alexandria, VA 22314

Revised 01/24/05

Raw Sequence Listing Error Summary

RROR DETECTED	SUGGESTED CORRECTION SERIAL NUMBER: 10/828,623
TTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE	
1Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
2Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.
3Misaligned Amino Numbering	The numbering under each 5 th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
4Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
5Variable Length	Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
6PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
7Skipped Sequences (OLD RULES)	Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped
	Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
8Skipped Sequences (NEW RULES)	Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000
9Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
10Invalid <213> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown o is Artificial Sequence
Use of <220>	Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
Patentin 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
13 Misuse of n/Xaa	"n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid
_	AMC Distribution Systems Branch - 09/09/2003

AMC - Biotechnology Systems Branch - 09/09/2003



IFWO

RAW SEQUENCE LISTING DATE: 02/07/2005
PATENT APPLICATION: US/10/828,623 TIME: 08:25:44

Input Set: A:\New England-0008.ST25.txt
Output Set: N:\CRF4\02072005\J828623.raw

```
3 <110> APPLICANT: Carr, Daniel
         Misicka-Kesik, Aleksandra
         Kream, Richard
 5
         Lipkowski, Andrzej
 8 <120> TITLE OF INVENTION: Novel Chimeric Analgesic Peptides
                                                                  pp 1-5
10 <130> FILE REFERENCE: 2004117-0008
12 <140> CURRENT APPLICATION NUMBER: 10/828,623
13 <141> CURRENT FILING DATE: 2004-04-21
                                  on 3.2

Corrected Diskette Needer

( see item 10 on Even Surroug 11 L)
15 <160> NUMBER OF SEQ ID NOS: 43
17 <170> SOFTWARE: PatentIn version 3.2
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 15
21 <212> TYPE: PRT
22 <213> ORGANISM: (a-endorphin
24 <400> SEQUENCE:
26 Thr Gly Gly Phe Met Thr Ser Glu Ser Gln Thr Pro Leu Val Thr
27 1
                                        10
30 <210> SEQ ID NO: 2
31 <211> LENGTH: 4
32 <212> TYPE: PRT
33 <213> ORGANISM: endomorphin-1
35 <400> SEQUENCE:
37 Tyr Pro Trp Phe
38 1
41 <210> SEQ ID NO: 3
42 <211> LENGTH: 4
43 <212> TYPE: PRT
44 <213> ORGANISM: endomorphin-2
46 <400> SEQUENCE:
48 Tyr Pro Phe Phe
49 1
52 <210> SEQ ID NO: 4
53 <211> LENGTH: 7
54 <212> TYPE: PRT
                                              move "Bouine" to beginning of response
55 <213> ORGANISM: dermorphin
57 <400> SEQUENCE:
                   4
59 Tyr Ala Phe Gly Tyr Pro Ser
60 1
                                       Bovine
63 <210> SEQ ID NO: 5
64 <211> LENGTH: 7
65 <212> TYPE: PRT
66 <213> ORGANISM: b-casomorphin (bovine)
68 <400> SEQUENCE: 5
```

DATE: 02/07/2005

TIME: 08:25:44

```
Input Set : A:\New England-0008.ST25.txt
                Output Set: N:\CRF4\02072005\J828623.raw
70 Tyr Pro Phe Pro Gly Pro Ile
74 <210> SEQ ID NO: 6
75 <211> LENGTH: 7
76 <212> TYPE: PRT
77 <213> ORGANISM: b-casomorphin (buman)
79 <400> SEQUENCE: 6
81 Tyr Pro Phe Val Glu Pro Ile
82 1
85 <210> SEQ ID NO: 7
                                    see item 10 on Error Summary Sheet
86 <211> LENGTH: 4
87 <212> TYPE: PRT
88 <213> ORGANISM: (morphiceptin
90 <400> SEQUENCE: 7
92 Tyr Pro Phe Pro
93 1
96 <210> SEQ ID NO: 8
97 <211> LENGTH: 5
98 <212> TYPE: PRT
99 <213> ORGANISM: (leu-enkephalin
101 <400> SEQUENCE: 8
103 Tyr Gly Gly Phe Leu
104 1
107 <210> SEQ ID NO: 9
108 <211> LENGTH: 5
109 <212> TYPE: PRT/
110 <213> ORGANISM: met-enkephalin
112 <400> SEQUENCE: 9
114 Tyr Gly Gly Phe Met
115 1
118 <210> SEQ ID NO: 10
119 <211> LENGTH: 4
120 <212> TYPE: PRT
121 <213> ORGANISM: (dalda
123 <400> SEQUENCE: 10
125 Tyr Arg Phe Lys
126 1
129 <210> SEQ ID NO: 11
130 <211> LENGTH: 4
131 <212> TYPE: PRT
132 <213> ORGANISM:
134 <400> SEQUENCE: 11
136 Tyr Pro Phe Pro
137 1
140 <210> SEQ ID NO: 12
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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/828,623

141 <211> LENGTH: 5 142 <212> TYPE: PRT 143 <213> ORGANISM: Dadle 145 <400> SEQUENCE: 12

DATE: 02/07/2005

TIME: 08:25:44

```
Input Set : A:\New England-0008.ST25.txt
                 Output Set: N:\CRF4\02072005\J828623.raw
147 Tyr Ala Gly Phe Leu
151 <210> SEQ ID NO: 13
152 <211> LENGTH: 6
153 <212> TYPE: PRT
154 <213> ORGANISM: Dslet
156 <400> SEQUENCE: 13
158 Tyr Ser Gly Phe Leu Thr
                                         envaled CZ137 respon
159 1
162 <210> SEQ ID NO: 14
163 <211> LENGTH: 5
164 <212> TYPE: PRT
165 <213> ORGANISM: X = pen is penicillamine, or 3-mercapto-(D) Valine
168 <220> FEATURE:
169 <221> NAME/KEY: misc feature
170 <222> LOCATION: (2)..(2)
171 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
173 <220> FEATURE:
174 <221> NAME/KEY: misc feature
175 <222> LOCATION: (5)..(5)
176 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
178 <400> SEQUENCE: 14
180 Tyr Xaa Gly Phe Xaa
181 1
184 <210> SEQ ID NO: 15
185 <211> LENGTH: 7
186 <212> TYPE: PRT
187 <213> ORGANISM: (deltorphin I
189 <400> SEQUENCE: 15
191 Tyr Ala Phe Asp Val Val Gly
192 1
195 <210> SEQ ID NO: 16
196 <211> LENGTH: 7
197 <212> TYPE: PRT
198 <213> ORGANISM deltorphin II
200 <400> SEQUENCE: 16
202 Tyr Ala Phe Glu Val Val Gly
203 1
206 <210> SEQ ID NO: 17
207 <211> LENGTH: 7
208 <212> TYPE: PRT
209 <213> ORGANISM dermenkephalin
211 <400> SEQUENCE: 17
213 Tyr Met Phe His Leu Met Asp
214 1
217 <210> SEQ ID NO: 18
218 <211> LENGTH: 17
219 <212> TYPE: PRT
220 <213> ORGANISM: dynorphin A
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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/828,623

RAW SEQUENCE LISTING DATE: 02/07/2005 PATENT APPLICATION: US/10/828,623 TIME: 08:25:44

Input Set: A:\New England-0008.ST25.txt
Output Set: N:\CRF4\02072005\J828623.raw

```
222 <400> SEQUENCE: 18
224 Tyr Gly Gly Phe Leu Arg Arg Ile Arg Pro Lys Leu Lys Trp Asp Asn
225 1
228 Gln
232 <210> SEQ ID NO: 19
233 <211> LENGTH: 8
234 <212> TYPE: PRT
235 <213> ORGANISM: (Dyn (1-8)
237 <400> SEQUENCE: 19
239 Tyr Gly Gly Phe Leu Arg Arg Ile
240 1
243 <210> SEQ ID NO: 20
244 <211> LENGTH: 13
245 <212> TYPE: PRT
246 <213> ORGANISM: Dyn (1-13)
248 <400> SEQUENCE: 20
250 Tyr Gly Gly Phe Leu Arg Arg Ile Arg Pro Lys Leu Lys
251 1
254 <210> SEQ ID NO: 21
255 <211> LENGTH: 11
256 <212> TYPE: PRT
257 <213> ORGANISM: (SP
259 <400> SEQUENCE: 21
261 Arg Pro Lys Pro Gln Gln Phe Phe Gly Leu Met
262 1
        . 5
265 <210> SEQ ID NO: 22
266 <211> LENGTH: 12
267 <212> TYPE: PRT
268 <213> ORGANISM: SP-glycine
270 <400> SEQUENCE: 22
272 Arg Pro Lys Pro Gln Gln Phe Phe Gly Leu Met Gly
273 1
276 <210> SEQ ID NO: 23
277 <211> LENGTH: 13
278 <212> TYPE: PRT
279 <213> ORGANISM SP-Glycine-Lysine
281 <400> SEQUENCE: 23
283 Arg Pro Lys Pro Gln Gln Phe Phe Gly Leu Met Gly Lys
287 <210> SEQ ID NO: 24
288 <211> LENGTH: 14
289 <212> TYPE: PRT 2
290 <213> ORGANISM: SP-Glycine-Lysine-Arginine
292 <400> SEQUENCE: 24
294 Arg Pro Lys Pro Gln Gln Phe Phe Gly Leu Met Gly Lys Arg
295 1
298 <210> SEQ ID NO: 25
299 <211> LENGTH: 12
300 <212> TYPE: PRT
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DATE: 02/07/2005

RAW SEQUENCE LISTING TIME: 08:25:44 PATENT APPLICATION: US/10/828,623 Input Set : A:\New England-0008.ST25.txt Output Set: N:\CRF4\02072005\J828623.raw 301 <213> ORGANISM: SP-Glycine-Methyl Ester 303 <400> SEQUENCE: 25 305 Arg Pro Lys Pro Gln Gln Phe Phe Gly Leu Met Gly 306 1 309 <210> SEQ ID NO: 26 310 <211> LENGTH: 13 311 <212> TYPE: PRT 312 <213> ORGANISM: (SP-Glycine-Lycine-Methyl Ester 314 <400> SEQUENCE: 26 316 Arg Pro Lys Pro Gln Gln Phe Phe Gly Leu Met Gly Lys 317 1 320 <210> SEQ ID NO: 27 321 <211> LENGTH: 14 322 <212> TYPE: PRT/ 323 <213> ORGANISM SP-Glycine-Lysine-Arginine Methyl Ester 325 <400> SEQUENCE: 27 327 Arg Pro Lys Pro Gln Gln Phe Phe Gly Leu Met Gly Lys Arg 328 1 331 <210> SEQ ID NO: 28 332 <211> LENGTH: 12 333 <212> TYPE: PRT 334 <213> ORGANISM: SP-Glycine-Elthyl Ester 336 <400> SEQUENCE: 28 338 Arg Pro Lys Pro Gln Gln Phe Phe Gly Leu Met Gly 339 1 342 <210> SEQ ID NO: 29 343 <211> LENGTH: 13 344 <212> TYPE: PRT 345 <213> ORGANISM: SP-Glycine-Lysine Ethyl Ester 347 <400> SEQUENCE: 29 349 Arg Pro Lys Pro Gln Gln Phe Phe Gly Leu Met Gly Lys 350 1 353 <210> SEQ ID NO: 30 354 <211> LENGTH: 14 355 <212> TYPE: PRT 356 <213> ORGANISM: (SP-Glycine-Lysine-Arginine Ethyl Ester 358 <400> SEQUENCE: 30 360 Arg Pro Lys Pro Gln Gln Phe Phe Gly Leu Met Gly Lys Arg 361 1 364 <210> SEQ ID NO: 31 365 <211> LENGTH: 4 366 <212> TYPE: PRT/ 367 <213> ORGANISM Recombinant 369 <400> SEQUENCE: 31 371 Arg Pro Lys Pro 372 1 The types of errors shown exist throughout 375 <210> SEQ ID NO: 32

the Sequence Listing. Flease check subsequent

sequences for similar errors.

376 <211> LENGTH: 7

377 <212> TYPE: PRT

RAW SEQUENCE LISTING ERROR SUMMARY

PATENT APPLICATION: US/10/828,623

DATE: 02/07/2005 TIME: 08:25:45

Input Set: A:\New England-0008.ST25.txt
Output Set: N:\CRF4\02072005\J828623.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the $\langle 220 \rangle$ to $\langle 223 \rangle$ fields of each sequence which presents at least one n or Xaa.

Seq#:14; Xaa Pos. 2,5/

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:43

VERIFICATION SUMMARY

DATE: 02/07/2005

PATENT APPLICATION: US/10/828,623

TIME: 08:25:45

Input Set : A:\New England-0008.ST25.txt
Output Set: N:\CRF4\02072005\J828623.raw

L:180 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0